

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): An electrode composite body for redox capacitors, comprising a conductive polymer and an electrode.
2. (currently amended): The electrode composite body for redox capacitors according to claim 1, wherein the conductive polymer ~~according to claim 1~~ further comprises an ionic liquid.
3. (currently amended): An electrode composite body for redox capacitors according to claim 1, wherein the conductive polymer ~~according to claim 1~~ further comprises an ionic liquid, and ~~the conductive polymer according to claim 1~~ comprises as a dopant the same anion as an anionic component contained in the ionic liquid.
4. (currently amended): The electrode composite body for redox capacitors according to claim 1, wherein the conductive polymer ~~according to claim 1~~ is prepared by electrolytic polymerization.
5. (currently amended): The electrode composite body for redox capacitors according to claim 1, wherein the conductive polymer ~~according to claim 1~~ is prepared by electrolytic polymerization in the presence of an ionic liquid.
6. (currently amended): The electrode composite body for redox capacitors according to claim 1, wherein the conductive polymer ~~according to claim 1~~ is prepared by electrolytic polymerization in the presence of an ionic liquid containing as a component at least one ion selected from sulfonic acid anion ($-\text{SO}_3^-$), carboxylato ($-\text{COO}^-$), and BF_4^- .

7. (currently amended): The electrode composite body for redox capacitors according to claim 1, wherein the conductive polymer ~~according to claim 1~~ is prepared by electrolytic polymerization in the presence of an organic solvent.

8. (currently amended): The electrode composite body for redox capacitors according to ~~claim 1~~ any one of claims 1 to 7, wherein the conductive polymer ~~according to any one of claims 1 to 7~~ is at least one selected from polypyrrole, polythiophene, polyquinone, derivatives of these polymers, and polymers prepared by polymerizing an amino-group-containing aromatic compound.

9. (currently amended): The electrode composite body for redox capacitors according to claim 1, wherein the conductive polymer ~~according to claim 1~~ is carried on the surface of the electrode ~~according to claim 1~~.

10. (currently amended): The electrode composite body for redox capacitors according to claim 9, wherein the electrode ~~according to claim 9~~ comprises a carbon material.

11. (original): An electrode composite body for redox capacitors, comprising a conductive polymer film and an electrode.

12. (currently amended): The electrode composite body for redox capacitors according to claim 11, wherein the thickness of the conductive polymer film ~~according to claim 11~~ in a state of actual use is 0.1 to 1,000 μm .

13. (currently amended): The electrode composite body for redox capacitors according to claim 11, wherein the thickness of the conductive polymer film ~~according to claim 11~~ when the conductive polymer film is dried at 25°C for 48 hours is 0.05 to 500 μm .

14. (original): An electrolyte for redox capacitors comprising an ionic liquid as an essential component.

15. (currently amended): A redox capacitor comprising an electrolyte containing an ionic liquid as an essential component and the electrode composite body for redox capacitors according to ~~any one of claims 1 to 13~~claim 1.

16. (currently amended): The redox capacitor according to claim 15, wherein the electrolyte essentially containing an ionic liquid ~~according to claim 15~~ comprises sulfonic acid anion ($-\text{SO}_3^-$), carboxylate ($-\text{COO}^-$), or BF_4^- .

17. (currently amended): The redox capacitor according to claim 15, wherein the electrolyte essentially containing an ionic liquid ~~according to claim 15~~ further comprises an organic solvent.

18. (original): The redox capacitor according to claim 17, wherein the weight ratio (A)/(B) of the organic solvent (A) to the ionic liquid (B) is 5 or less.

19. (original): The redox capacitor according to any one of claims 15 to 18, the redox capacitor including at least an ionic liquid and a conductive polymer that use all or some of oxidation-reduction of an electrode material, charge-and-discharge in the electric double layer, and adsorption and desorption of ions on the surface of an electrode for storing-and-discharging electric energy, wherein a doping-dedoping reaction of the conductive polymer is performed in the ionic liquid solution.

20. (currently amended): A composite body of an electrolyte ~~according to claim 14~~for redox capacitors comprising an ionic liquid as an essential component and electrodes used for the redox capacitor according to ~~any one of claims 15 to 19~~claim 15 that includes at least an ionic liquid and the conductive polymer and that uses ~~the~~a doping-dedoping reaction of the conductive polymer, wherein ~~the~~a anionic component contained in the ionic liquid is the same component as a part of ~~the~~a dopant of the conductive polymer.

Preliminary Amendment
Based on PCT/JP2004/014140

21. (original): The composite body according to claim 20, wherein at least one electrode comprises an electrode prepared by combining a polypyrrole film.